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**To the Drawings**

Please replace the drawings with the replacement drawing sheets submitted hereto, in which "Prior Art" has been marked to Figs. 4 and 5 as instructed by the Examiner.

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### REMARKS

#### Drawings

In the current Office Action, the drawings Figs. 4 and 5 are objected to.

In response thereto, Applicant has submitted replacement drawing sheets, in which proper amendments have been made as instructed by the Examiner.

#### Present Status of the Application

The Office Action objects to claims 1, 2, 5, 7, 8, 11, 15, 22, 25 and 27 because of some informalities requiring corrections.

The Office Action rejects claim 14 under the second paragraph of 35 U.S.C. 112, as claim 14 recites the limitation "said fourth frame" in line 2, and there is insufficient antecedent basis for this limitation in the claim.

The Office Action rejects claim 15 under the second paragraph of 35 U.S.C. 112, as claim 15 recites the limitations "said eight frame data" and "said ninth frame data" in the last phrase, and there is insufficient antecedent basis for these limitations in the claim.

The Office Action rejects claim 29 under the second paragraph of 35 U.S.C. 112, as claim 29 recites the limitation "said eleventh frame data" in the second phrase, and there is insufficient antecedent basis for this limitation in the claim.

The Office Action rejects claims 1-6 and 8-30 under 35 U.S.C. 112, 2<sup>nd</sup> paragraph as being indefinite.

The Office Action rejects claims 1, 6, 15 and 20 under 35 U.S.C. 102(a) as being anticipated by Van Asma (USPN. 6,489,964; hereinafter "Van Asma").

The Office Action rejects claim 7 under 35 U.S.C. 102(e) as being anticipated by

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Lei (USPN. 6,130,911; hereinafter "Lei").

The Office Action rejects claims 1-5, 8-19 and 21-30 under 35 U.S.C. 103(a) as being unpatentable over Lei in view of Van Asma.

Upon entry of the amendments in this response, claims 1-30 remain pending in the present application. More specifically, claims 1-5, 7-9, 11, 12, 14-18, 21-23, 25-27, 29 have been amended. These amendments are specifically described hereinafter. It is believed that the foregoing amendments add no new matter to the present application. Reconsideration and allowance of the application and presently pending claims 1-30 are respectfully requested.

#### **Response to Objections**

Claims 1, 2, 5, 7, 8, 11, 15, 22, 25 and 27 are objected because of some required informalities requiring corrections.

Claims 1, 2, 5, 7, 8, 11, 15, 22, 25 and 27 have been amended as instructed by the Examiner.

#### **Discussion of the Claim Rejection under 35 U.S.C. 112**

The Office Action rejects claim 14 under the second paragraph of 35 U.S.C. 112, as claim 14 recites the limitation "said fourth frame" in line 2, and there is insufficient antecedent basis for this limitation in the claim.

In response thereto, Applicant has amended the limitation to "a fourth frame" in claim 14.

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The Office Action rejects claim 15 under the second paragraph of 35 U.S.C. 112, as claim 15 recites the limitations "said eight frame data" and "said ninth frame data" in the last phrase, and there is insufficient antecedent basis for these limitations in the claim.

In response thereto, Applicant has amended the limitations to "an eighth frame data" and "a ninth frame data" in claim 15.

The Office Action rejects claim 29 under the second paragraph of 35 U.S.C. 112, as claim 29 recites the limitation "said eleventh frame data" in the second phrase, and there is insufficient antecedent basis for this limitation in the claim.

In response thereto, as claim 29 recites the limitation "an eleventh frame data" in the step of quantizing the tenth frame data and the third frame data (by using a nonlinear quantization method to output said first frame data and an eleventh frame data respectively"; therefore, it is submitted that sufficient antecedent basis has been provided for the limitation in the claim 29, and the rejection should be withdrawn.

The Office Action rejects claims 1-6 and 8-30 under 35 U.S.C. 112, 2nd paragraph as being indefinite.

In response to the rejection thereto, Applicant has amended claims 1-5, 7-9, 11, 12, 14-18, 21-23, 25-27, 29 and hereby submits claims 1-6 and 8-30 are now in allowable forms.

As currently amended, claim 1 reads a circuit for enhancing motion picture quality ...*a multiplexer unit, coupled to said first dual-port buffer, said second dual-port buffer, and said frame memory, for selecting and transmitting one of said*

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*outputted said first frame data to said frame memory and said outputted said second frame data from said frame memory to said second dual-port buffer; and a signal-converter, for receiving said first frame data and said second frame data and comparing said first frame data and said second frame data to generate a compensation data and output a third frame data.* Applicant submits the currently amended claim 1 is now definite enough over the requirement as set forth in 35 U.S.C. 112, 2nd paragraph, and should be allowable.

As currently amended, claim 2 reads the circuit of claim 1 ...*a second data latch, for receiving said second frame data and outputting a fifth frame data, the number of bits of said second frame data is larger than the number of bits of said fifth frame data.* Applicant submits the currently amended claim 2 is now consistent with the previous independent claim and figure 6, and should be allowable.

As currently amended, claim 8 reads the circuit of claim 7 ...*a multiplexer unit, coupled to said first dual-port buffer, said second dual-port buffer, and said frame memory; for selecting and transmitting one of said outputted said second frame data to said frame memory and said outputted said third frame data from said frame memory to said second dual-port buffer.* Applicant submits the currently amended claim 8 is now consistent with the previous independent claim and figure 6, and should be allowable.

As currently amended, claim 9 reads *a motion picture enhancing unit... comparing said second frame data and said third frame data.* Applicant submits the currently amended claim 9 is now definite enough over the requirement as set forth in

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35 U.S.C. 112, 2nd paragraph, and should be allowable.

As currently amended, in claim 11, the term "frame date" having a grammatical issue has been amended to "frame data".

As currently amended, claim 12 reads *the method of claim 11...receiving said second frame data and outputting a fifth frame data, the number of bits of said second frame data is larger than the number of bits of said fifth frame data*. Applicant submits the currently amended claim 12 is now definite enough over the requirement as set forth in 35 U.S.C. 112, 2nd paragraph, and should be allowable.

As currently amended, claim 15 reads *a circuit for enhancing motion picture quality...a signal-converter, for receiving said first frame data, said second frame data and a third frame data to generate a compensation data and to output a fourth frame data and a fifth frame data*. Applicant submits the currently amended phrase about the signal-converter is now clear.

As currently amended, claim 15 reads *a circuit for enhancing motion picture quality...a second data flow switcher, for receiving said fourth frame data and said fifth frame data and transforming said fourth frame data and said fifth frame data to output an eighth frame data and a ninth frame data, said second data flow switcher outputs one of said eighth frame data and said ninth frame data*. Applicant submits the currently amended phrase about the second data flow switcher is now clear.

As currently amended, claim 15 reads *a circuit for enhancing motion picture quality...a multiplexer unit, coupled to said first dual-port buffer, said second dual-port*

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*buffer, and said frame memory, for selecting and transmitting one of said outputted said first frame data to said frame memory and said outputted said second frame data from said frame memory to said second dual-port buffer.* Applicant submits the currently amended phrase about the multiplexer unit is now clear.

Therefore, claim 15 is now definite enough over the requirement as set forth in 35 U.S.C. 112, 2nd paragraph, and should be allowable.

As currently amended, claim 21 reads *a circuit for enhancing motion picture quality...a signal-converter, for receiving said first frame data, said third frame data, said fourth frame data and said fifth frame data to generate a compensation data and to output a sixth frame data and a seventh frame data.* Applicant submits the currently amended phrase about the signal-converter is now clear.

As currently amended, claim 21 reads *a circuit for enhancing motion picture quality...a second data flow switcher, for receiving said sixth frame data and said seventh frame data and transforming said sixth frame data and said seventh frame data to output a tenth frame data and a eleventh frame data. said second data flow switcher outputs one of said tenth frame data and said eleventh frame data.* Applicant submits the currently amended phrase about the second data flow switcher is now clear.

The currently amended claim 21 does not contain the multiplexer unit.

In light of the foregoing, claim 21 is now definite enough over the requirement as set forth in 35 U.S.C. 112, 2nd paragraph, and should be allowable.

As currently amended, claim 16 reads *the circuit of claim 15, further comprising: a first data latch, coupled to and between said first data flow switcher and said first*



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*dual-port buffer, said first data flow switcher is changed for receiving said sixth frame data and said seventh frame data, and transforming said sixth frame data and said seventh frame data to output a tenth frame data and the third frame data, said first data flow switcher outputs one of said third frame data and said tenth frame data, said first data latch, for receiving said tenth frame data and outputting said first frame data, the number of bits of said first frame data is larger than the number of bits of said tenth frame data.* Applicant submits the currently amended claim 16 does not contradict claim 15; namely, claim 16 is now definite enough over the requirement as set forth in 35 U.S.C. 112, 2nd paragraph, and should be allowable.

As currently amended, claim 17 reads the circuit of claim 16...*a first nonlinear quantizer, coupled to and between said first data flow switcher and said first data latch, said first data flow switcher is changed for receiving said sixth frame data and said seventh frame data, and transforming said sixth frame data and said seventh frame data to output a twelfth frame data and the third frame data, said first data flow switcher outputs one of said third frame data and said twelfth frame data, said first nonlinear quantizer receiving said twelfth frame data and quantizing said twelfth frame data by using a nonlinear quantization method to output said tenth frame data.* Applicant submits the asserted contradiction regarding each frame data no longer exists. Similarly, Applicant also has amended claims 26, 27 and 29, and therefore the contradiction regarding each frame data has been removed in amended claims, rendering claims 17 and 26-30 allowable.



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**Discussion of the Claim Rejection under 35 U.S.C. 102**

The Office Action rejects claims 1, 6, 15 and 20 under 35 U.S.C. 102(a) as being anticipated by Van Asma.

In response thereto, Applicant has amended independent claim 1, and hereby otherwise traverses these rejections. As such, the present invention as set forth in the currently amended claim 1 and its dependent claims 2-6 are submitted to be novel and unobvious over Van Asma, or any of the other cited references, taken alone or in combination, and thus should be allowed.

Claim 1, as currently amended, recites in parts:

A circuit for enhancing motion picture quality, comprising:

...  
**a signal-converter, for receiving said first frame data and said second frame data and comparing said first frame data and said second frame data to generate a compensation data and output a third frame data.**

(Emphasis added)

Van Asma fails to teach at least **“the signal-converter is for receiving said first frame data and said second frame data”** and **“comparing said first frame data and said second frame data”**.

The Examiner does not express **“a compensation data”** clearly in Van Asma's circuit and how the compensation data is generated in the disclosure of Van Asma.

Applicant submits Van Asma fails to teach, disclose, or suggest the following limitations of the currently amended claim 1 **“a signal-converter, for receiving said first frame data and said second frame data and comparing said first frame data and said second frame data to generate a compensation data and output a third**

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**frame data".**

Therefore, for at least the foregoing reasons, claim 1 and its dependent claims 2-6 are submitted to be allowable over Van Asma, or any of the other cited references.

In response to the rejection of claim 15 and its dependent claims 16-20, Applicant has amended independent claim 15, and hereby otherwise traverses these rejections. As such, the present invention as set forth in the currently amended claim 15 and its dependent claims 16-20 are submitted to be novel and unobvious over Van Asma, or any of the other cited references, taken alone or in combination, and thus should be allowed.

Claim 15, as currently amended, recites in parts:

A circuit for enhancing motion picture quality, comprising:

...

**a signal-converter, for receiving said first frame data, said second frame data and a third frame data to generate a compensation data and to output a fourth frame data and a fifth frame data;**

**a first data flow switcher, for receiving a sixth frame data and a seventh frame data and transforming said sixth frame data and said seventh frame data to output said first frame data and said third frame data, said first data flow switcher outputs one of said first frame data and said third frame data; and**

**a second data flow switcher, for receiving said fourth frame data and said fifth frame data and transforming said fourth frame data and said fifth frame data to output an eighth frame data and a ninth frame data, said second data flow switcher outputs one of said eighth frame**

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**data and said ninth frame data. (Emphasis added)**

Van Asma fails to teach at least **"the signal-converter is for receiving said first frame data, said second frame data and a third frame data"**, and **"the signal-converter generates a compensation data and to output a fourth frame data and a fifth frame data"**, and **"the first data flow switcher is for receiving a sixth frame data and a seventh frame data and transforming said sixth frame data and said seventh frame data"**, and **"the first data flow switcher generates a compensation data and to output a fourth frame data and a fifth frame data"**, and **"the second data flow switcher is, for receiving said fourth frame data and said fifth frame data and transforming said fourth frame data and said fifth frame data"**, and **"the second data flow switcher outputs an eighth frame data and a ninth frame data, said second data flow switcher outputs one of said eighth frame data and said ninth frame data"**.

The Examiner does not express **"the third frame data"** clearly in Van Asma's circuit.

Therefore, for at least the foregoing reasons, claim 15 and its dependent claims 16-20 are submitted to be allowable over Van Asma, or any of the other cited references.

The Office Action rejects claim 7 under 35 U.S.C. 102(e) as being anticipated by Lei.

In response thereto, Applicant has amended independent claim 7, and hereby otherwise traverses these rejections. As such, the present invention as set forth in the currently amended claim 7 and its dependent claims 8-10 are submitted to be novel and

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unobvious over Lei., or any of the other cited references, taken alone or in combination, and thus should be allowed.

Claim 7, as currently amended, recites in parts:

A circuit for enhancing motion picture quality, comprising:

...

**a signal-converter, in response to said second frame data and said third frame data corresponding to said second frame data, for obtaining a compensation data to compensate said first frame data for outputting a fourth frame data. (Emphasis added)**

Lei fails to teach at least **"the signal-converter, in response to said second frame data and said third frame data corresponding to said second frame data, for obtaining a compensation data to compensate said first frame data for outputting a fourth frame data"**.

**"The second frame data"** recited in Lei does not correspond with the present invention as set forth in claim 7.

Applicant submits Lei fails to teach, disclose, or suggest the following limitation of the currently amended claim 7 **"a signal-converter, in response to said second frame data and said third frame data corresponding to said second frame data, for obtaining a compensation data to compensate said first frame data for outputting a fourth frame data."**

Therefore, for at least the foregoing reasons, claim 7 and its dependent claims 8-10 are submitted to be allowable over Lei, or any of the other cited references.

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**Discussion for 35 U.S.C. 103 Rejections**

The Office Action rejects claims 1-5, 8-19 and 21-30 under 35 U.S.C. 103(a) as being unpatentable over Lei in view of Van Asma.

In response thereto, Applicant has amended claims 1-5, 8-9, 11, 12, 14-18, 21-23, 25-27, 29 and hereby otherwise traverses these rejections. As such, Applicant submits the present invention, as set forth in claims 1-5, 8-19 and 21-30 has no teaching or suggestion to modify Lei in view of Van Asma, and thus should be allowed.

Specifically, with respect to claim 1, as currently amended, recites in part:

A circuit for enhancing motion picture quality, comprising:

...  
a signal-converter, for receiving said first frame data and said second frame data and comparing said first frame data and said second frame data to generate a compensation data and output a third frame data.

(Emphasis added)

Applicant submits Lei or Van Asma fails to teach, disclose, or suggest at least the following limitations of the currently amended claim 1 "the signal-converter is for receiving said first frame data and said second frame data" and "the signal-converter is for comparing said first frame data and said second frame data to generate a compensation data and output a third frame data".

The Examiner does not express "*the first frame data and the second frame data*" clearly in Lei's circuit.

Therefore, Applicant respectfully submits that there is no intention, motivation and whatsoever that Lei is to be/able to be combined with Van Asma to arrive the present invention as claimed in claim 1.

Claims 2-5 depend on allowable independent claim 1, and thus should also be

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allowable.

With respect to claim 8, claim 8 depends on allowable independent claim 7 (see above discussion), and thus should also be allowable.

With respect to claims 9-10, claims 9-10 should also be patentable since they depend on allowable claims 7 or 8 directly or indirectly.

With respect to claims 11-14, for the reasons similar to those discussed before and addressing allowability of claims 1-4, claims 11-14 are submitted to be allowable.

With respect to claim 15, as currently amended, recites in part:

A circuit for enhancing motion picture quality, comprising:

...

a signal-converter, for receiving said first frame data, said second frame data and a third frame data to generate a compensation data and to output a fourth frame data and a fifth frame data;

a first data flow switcher, for receiving a sixth frame data and a seventh frame data and transforming said sixth frame data and said seventh frame data to output said first frame data and said third frame data, said first data flow switcher outputs one of said first frame data and said third frame data; and

a second data flow switcher, for receiving said fourth frame data and said fifth frame data and transforming said fourth frame data and

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**said fifth frame data to output an eighth frame data and a ninth frame data, said second data flow switcher outputs one of said eighth frame data and said ninth frame data. (Emphasis added)**

Applicant submits Lei or Van Asma fails to teach, disclose, or suggest at least the following limitations of currently amended claim 15 **“a signal-converter, for receiving said first frame data, said second frame data and a third frame data to generate a compensation data and to output a fourth frame data and a fifth frame data”, and “a first data flow switcher, for receiving a sixth frame data and a seventh frame data and transforming said sixth frame data and said seventh frame data to output said first frame data and said third frame data, said first data flow switcher outputs one of said first frame data and said third frame data”, and “a second data flow switcher, for receiving said fourth frame data and said fifth frame data and transforming said fourth frame data and said fifth frame data to output an eighth frame data and a ninth frame data, said second data flow switcher outputs one of said eighth frame data and said ninth frame data”.**

The Examiner does not express **“the first frame data, the second frame data and the third frame data”** clearly in Lei's circuit, and the Examiner does not express **“the fourth frame data and the fifth frame data”** clearly in Asma's circuit.

The present invention, as currently amended, reads **“the signal-converter outputs a fourth frame data and a fifth frame data”**, and the technical limitation is not corresponding to the sequential outputs of “lin mem” recited in Lei.

Therefore, Applicant respectfully submits that there is no intention, motivation and whatsoever that Lei is to be/able to be combined with Van Asma to arrive the present invention as claimed in claim 15.



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Claims 16-19 depend on allowable independent claim 15, and thus should also be allowable.

With respect to claim 21, as currently amended, recites in part:

A circuit for enhancing motion picture quality, comprising:

...

a second nonlinear quantizer, for receiving a third frame data and quantizing said third frame data by using a nonlinear quantization method to output a fourth frame data;

...

a signal-converter, for receiving said first frame data, said third frame data, said fourth frame data and said fifth frame data to generate a compensation data and to output a sixth frame data and a seventh frame data;

a first data flow switcher, for receiving an eighth frame data and a ninth frame data and transforming said eighth frame data and said ninth frame data to output the first frame data and the third frame data, said first data flow switcher outputs one of said first frame data and said third frame data; and

a second data flow switcher, for receiving said sixth frame data and said seventh frame data and transforming said sixth frame data and said seventh frame data to output a tenth frame data and a eleventh frame data, said second data flow switcher outputs one of said tenth frame data and said eleventh frame data. (Emphasis added)

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Applicant submits Lei or Van Asma fails to teach, disclose, or suggest at least the limitations of the currently amended claim 21 “a first data flow switcher, for receiving an eighth frame data and a ninth frame data and transforming said eighth frame data and said ninth frame data to output the first frame data and the third frame data, said first data flow switcher outputs one of said first frame data and said third frame data”, and “a second data flow switcher, for receiving said sixth frame data and said seventh frame data and transforming said sixth frame data and said seventh frame data to output a tenth frame data and a eleventh frame data, said second data flow switcher outputs one of said tenth frame data and said eleventh frame data”.

The Examiner has asserted the first frame data of the present invention corresponds to the input 72 in Lei, but then the Examiner has interpreted the third frame data of the present invention also corresponds to the input 72 in Lei. The Examiner's assertion is accordingly indefinite for failing to particularly point out the first frame data and the third frame data in the Office Action.

The Examiner has asserted the second frame data of the present invention corresponds to the output 72 (input 76) in Lei, but then the Examiner has interpreted the fourth frame data of the present invention corresponds to the output 72 in Lei. The Examiner's assertion is accordingly indefinite for failing to particularly point out the second frame data and the fourth frame data.

The present invention, as currently amended, reads “the first data flow switcher is for receiving the eighth frame data and the ninth frame data”, and the technical limitation is not corresponding to the sequential input into “lin mem” in Lei.

Therefore, Applicant respectfully submits that there is no intention, motivation

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and whatsoever that Lei is to be/able to be combined with Van Asma to arrive the present invention as claimed in claim 21.

Claims 22-24 depend on allowable independent claim 21, and thus should also be allowable.

With respect to claims 25-30, for the reasons similar to those discussed above and addressing allowability of claims 15-20, claims 25-30 are submitted to be allowable.

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### CONCLUSION

In view of the foregoing, it is believed that all pending claims 1-30 are in proper condition for allowance. If the Examiner believes that a conference would be of value in expediting the prosecution of this application, he is cordially invited to telephone the undersigned counsel to arrange for such a conference.

Date :

Respectfully submitted,

Nov. 5, 2007

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